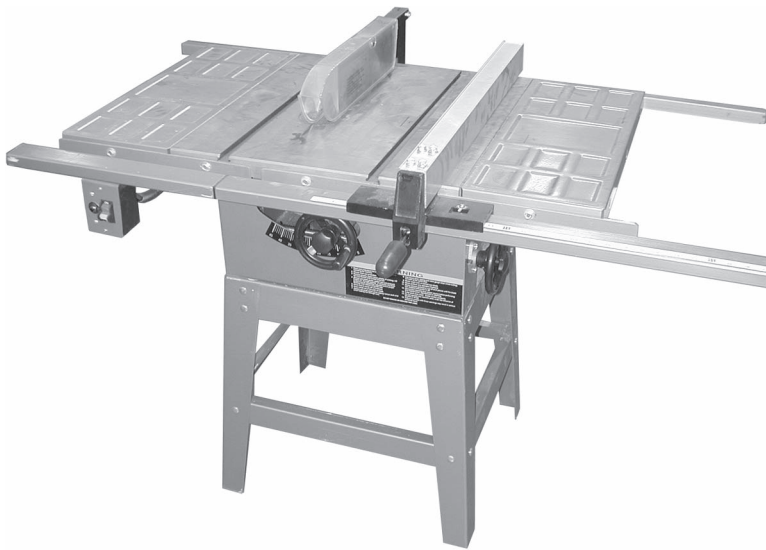


CENTRAL MACHINERY®

TABLE SAW - 10 INCH DIRECT DRIVE

Model 91815

ASSEMBLY AND OPERATING INSTRUCTIONS



3491 MISSION OAKS BLVD., CAMARILLO, CA 93011
VISIT OUR WEB SITE AT [HTTP://WWW.HARBORFREIGHT.COM](http://www.harborfreight.com)

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For technical questions and replacement parts, please call 1-800-444-3353

SPECIFICATIONS

Item	Description
Power Requirements	115 VAC, 15 amps, 60 Hz
Power Cord	Length: 43 inches; 14 AWG x 3C, 3-prong plug
Switch Type	Toggle with pull-out key safety lock
Motor Capacity	1.5 HP, 5000 RPM (maximum)
Drive Type	Gear drive
Saw Blade	10 inch, 36 teeth (included)
Arbor Size	5/8 inch
Cutting Angles	90 to 30 degrees (left / right) angle 0 to 60 degree (left / right) miter
Cutting Capacity	3-1/8 inches at 90 degrees; 2-1/8 inches at 45 degrees (tilt)
Rip Fence	28-1/4 (L) x 1-3/4 (W) x 2-1/2 (H) inch Scale: 0 to 27-1/4 inches (right) Fence-to-blade: 25-1/2 inches (maximum)
Base Dimensions	20-1/8 (L) x 22-5/8 (W) x 21-5/8 (H) inches
Table Dimensions	38-1/2 (W) x 22-1/4 (L) x 1-3/8 (H) inches
Overall Dimensions	20-1/8 (L) x 51-1/8 (W) x 38 (H) inches
Weight	165 lbs.

SAVE THIS MANUAL

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

 **WARNING!**

READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS

Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

Electrical Safety

4. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
5. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
6. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
7. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

Personal Safety

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
12. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
15. **Use safety equipment. Always wear eye protection.** Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

16. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
17. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
18. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
20. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
21. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.
22. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
23. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

Service

24. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES FOR THE TABLE SAW

1. Maintain labels and nameplates on the Table Saw. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. Always wear ANSI approved safety impact eye goggles and heavy work gloves when using the Table Saw. Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
3. Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
4. Avoid unintentional starting. Make sure you are prepared to begin work before turning on the Table Saw.
5. Do not force the Table Saw. This tool will do the work better and safer at the speed and capacity for which it was designed.
6. Always unplug the Table Saw from its electrical outlet before performing and inspection, maintenance, or cleaning procedures.
7. After cutting, wait until the saw blade comes to a complete stop before removing stock from the table, reaching around the saw blade, or leaving the area.
8. Never walk away and leave the saw running.
9. When making rip cuts, feed the stock into the blade against the direction of the blade rotation.
10. Always use a push stick (not included) when ripping small or thin stock.
11. Keep saw blade sharp and free of all rust and pitch.
12. Always use the Anti-kickback Pawl (17) attachment when making rip cuts.
13. Always use the saw fence, blade guard, splitter, and anti-kickback fingers for lengthwise sawing. Never push stock being cut by hand. Never disable the Blade Guard (10).
14. Tighten and lock all adjusting (saw blade positioning) screws before operating.
15. Keeps hands out of the path of the saw blade during operation.
16. Only use ten (10) inch saw blades with 5/8 inch arbor on this machine.
17. Always secure the stock being cut with clamps whenever possible.
18. Make sure that the Switch is in the OFF position before plugging the line cord into the electrical outlet.
19. Never cut more than one piece of stock at a time, for any type of cut.
20. Provide proper support for the stock based on its size and the type of operation to be performed.

21. Many saw accidents are caused by dull, badly set, and improperly filed cutting blades; gum or resin adhering to the cutting blade; and by saw blade misalignment with the fence. Such conditions can cause the stock to stick, jam, stall the saw blade, or kick back at the operator. Never cut anything other than wood with the included Saw Blade; cutting hard materials can cause the carbide blade to shatter and break apart.

WARNING: Never attempt to free a stalled saw blade without first turning OFF the Table Saw and unplugging the Line Cord from the outlet.

22. Avoid awkward hand positions (i.e., crossing arms during operation) in which a sudden slip could cause your hand to move into the moving saw blade.
23. Before making any adjustments to the Table Saw, the Switch should be in the OFF position and the Switch locked OFF.
24. Never turn the Table Saw ON before clearing the table and work surface of all objects (tools, scraps of wood, etc.), except the stock to be cut.
25. Avoid Kickback of stock:
 - For rip cuts, the saw blade must be exactly parallel to the fence to prevent pinching or heeling. Use the stock Separator (27) on the output side of the stock cut.
 - Only feed the stock against the rotation of the saw blade.
 - Keep the stock firmly on the table while cutting.
26. When making rip cuts:
 - Push only on the main section of stock, between the saw blade and the fence.
 - Always use a push stick, never your hands.
 - Do not release the stock before the cut is complete, and push beyond the saw blade.
 - Always push the stock through the saw blade, never pull it through from the opposite direction.
 - Always use the anti-kickback claws.
 - Do not rip stock that is bowed, warped, or has nonparallel edges.
 - Never reach over or behind the saw blade.
27. The use of abrasive, cut off, or wire wheels can be dangerous and must not be used.
28. Never perform any sawing operation freehand.
29. Before each use, check all nuts, bolts, and screws for tightness. Vibration during cutting may cause these to loosen.
30. Keep extension cord off the ground and away from water.

Note: Performance of this tool may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

⚠ WARNING! Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks and cement or other masonry products, arsenic and chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (*California Health & Safety Code 25249.5, et seq.*)

⚠ WARNING! People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity to a heart pacemaker could cause interference to, or failure of the pacemaker. In addition, people with pacemakers should adhere to the following:

- Avoid operating power tools alone.
- Don't use a power tool with the power switch locked on.
- If powered via a power cord be certain that the tool is properly grounded. A ground fault interrupt (GFCI) system is also a good precaution. This inexpensive device is a good safety measure because it prevents a sustained electrical shock.
- Properly maintain and inspect all tools before use to avoid electrical shock.

GROUNDING

Note: This tool comes with a 3-prong grounded plug.

⚠ WARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool or product. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Grounded Tools: Tools with Three Prong Plugs

1. Tools marked with "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)

- The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal. (See Figure A.)
- Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. (See Figure A.)

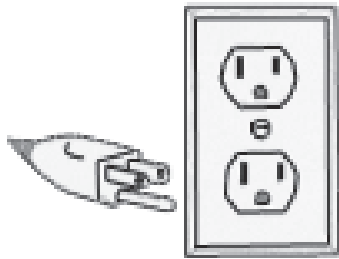


Figure A. Three-prong Outlet

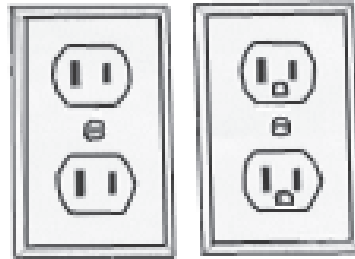


Figure B. Two-prong Outlet

Double Insulated Tools: Tools with Two Prong Plugs

- Tools marked "Double Insulated" do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B above.)
- Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. (See Figure B above.)

EXTENSION CORDS

- Grounded* tools require a three wire extension cord. *Double Insulated* tools can use either a two or three wire extension cord.
- As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. (See Table A.)
- The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. (See Table A.)
- When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. (See Table A.)
- If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. (See Table A.)

6. If you are using an extension cord outdoors, make sure it is marked with the suffix “W-A” (“W” in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.




Table A

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120 VOLT)					
NAMEPLATE AMPERES (At Full Load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	16	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

* Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

SYMBOLOLOGY

Table B

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V ~	Volts Alternating Current
A	Amperes
n_0 <u>xxxx</u> /min.	No Load Revolutions per Minute (RPM)

UNPACKING

When unpacking, check to make sure that all the parts are included. Refer to the Assembly section, and the Assembly Drawing and Parts List at the end of this manual.

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

ASSEMBLY INSTRUCTIONS

Stand Assembly

Note: Hand tighten the nuts and bolts during assembly.

1. Attach the Stand Legs (62) to the Stand Top (60) front and rear pieces using sixteen 5/16" x 5/8" Carriage Bolts (61), 5/16" Flat Washers (59), 5/16" Lock Washers (39), and 5/16" Hex Nuts (58). Refer to Figure C., below.
2. Attach the Cross Braces (63) to the left and right sides of the Stand Legs (62), and Cross Braces (64) to the front and rear sides of the Stand Legs (62). Use eight 5/16" x 5/8" Carriage Bolts (61), 5/16" Flat Washers (59), 5/16" Lock Washers (39), and 5/16" Hex Nuts (58).

The longer Cross Braces must be under the longer Stand Top pieces as shown below.

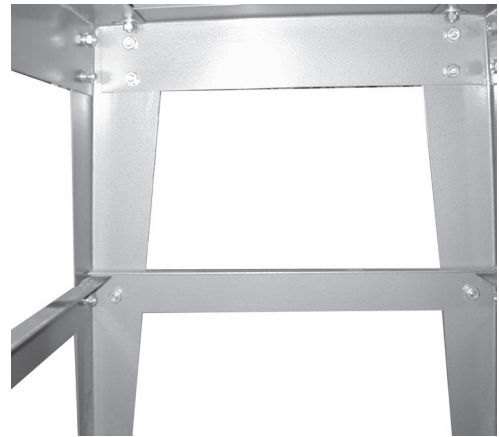
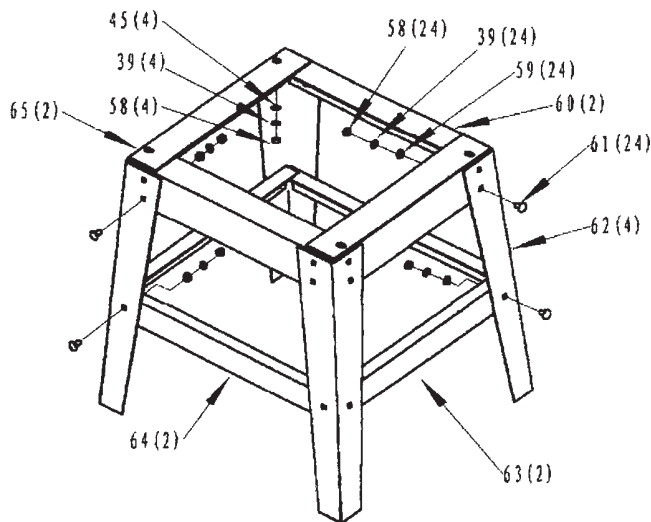


Figure C. Stand Assembly

Assembling the Saw to the Stand

Caution: The Table Saw body is very heavy and needs two people to lift. Use care when lifting. Failure to comply may cause serious injury and damage to equipment.

1. With the help of another person, carefully lift the saw body out of the shipping box and set on the ground.
2. Remove the protect wrapping from the saw top and wipe the saw top clean with a soft cloth.
3. Lift the saw body and place upside down on a protective surface (For example, place on a flattened cardboard box.).
4. Place the previously assembled Stand upside down on the saw body bottom. Note that the label on the Stand must face forward or toward the front of the saw body.
5. Align the mounting holes in the Stand with those on the saw body bottom and secure using four 5/16" x 3/4" Cap Bolts (38), eight 5/16 x 23mm Flat Washers (45), four 5/16" Lock Washers (39), and four 5/16" Hex Nuts (58). Refer to Figure D., below.
6. Securely tighten the hardware attaching the saw body to the Stand. Do not tighten the Stand hardware until the saw is placed on its feet.
7. With the help of another person, carefully lift and turn the saw over onto the Stand feet.
8. Level the saw body by moving it back and forth until the saw body is sitting level and squarely on the Stand feet.
9. Securely tighten all Stand hardware.

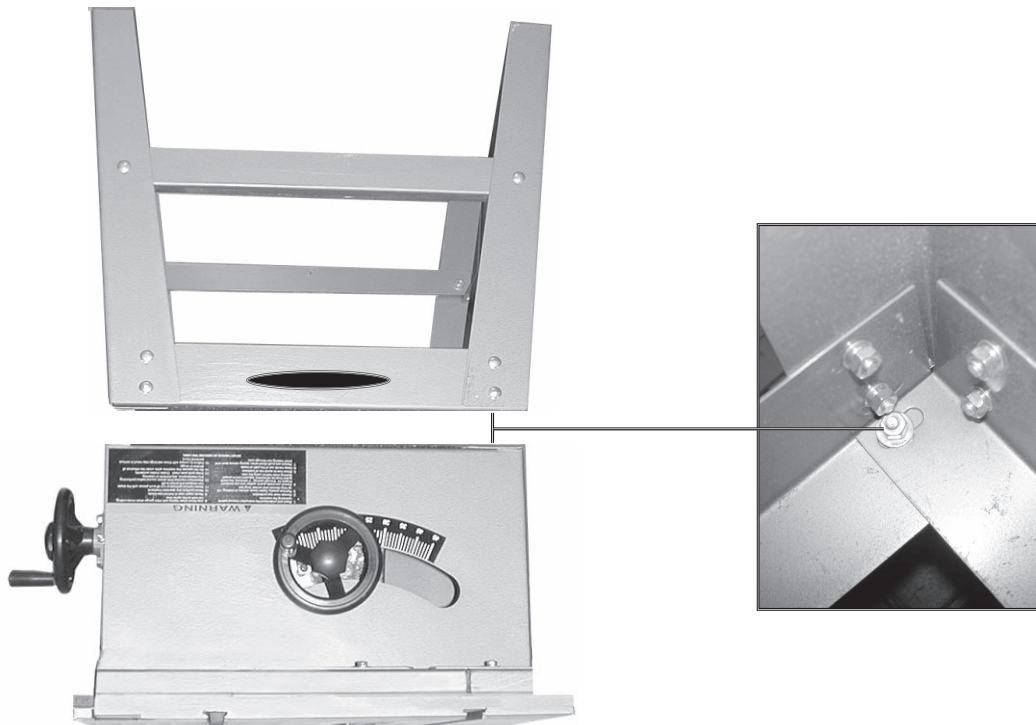


Figure D. Stand-to-Saw Assembly

Extension Wing Assembly

1. Bolt the right Extension Wing (76) to the Table (22) with three 5/16" x 1" Hex Cap Bolts (75), 5/16 x 23mm Flat Washers (45), and 5/16" Lock Washers (39). Refer to Figures E and F, below.

Hand tighten enough to hold the wing in place and allow for adjustment.

2. Place a "carpenter's level" (not included) on the Table so that it hangs over the edge of the wing approximately one inch.
3. Bring the edge of the wing flush to the edge of the Table top, then tighten the Hex Cap Bolts when the (corner) lead edge of the wing is also flush with the Table from front to back.
4. Repeat steps one through four with the left Extension Wing (76).

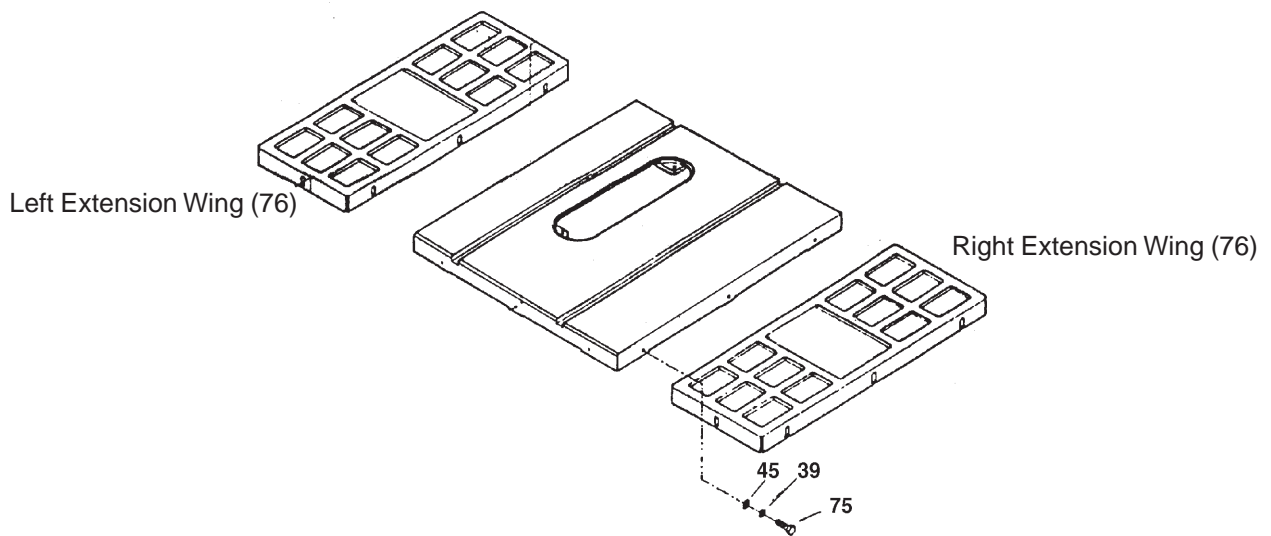


Figure E. Wing Assembly



Figure F. Wing and Rail Assembly

Guide Rail Assembly

1. Attach the Front Rail brackets (72 and 69) to the Table (22) with only three 1/4" x 3/4" Hex Screws (29), 1/4" Lock Washers (14), and 1/4" Flat Washers (2). See Figures F and G. Hex Screws (29) should be placed horizontally in approximately the center of the slot.
2. Attach the Rear Rail brackets (20 and 21) to the Table (22) with only three 1/4" x 3/4" Hex Screws (29), 1/4" Lock Washers (14), and 1/4" Flat Washers (2).
3. Push the long Front Rail bracket (69) up as far as it will go, then tighten the two Hex Screws (29) holding it to the Table.
4. Push the long Rear Rail (21) as far up as it will go, then tighten the two Hex Screws (29) holding it to the Table.
5. Insert a 1/4" x 3/4" Hex Screw (29) with a 1/4" Flat Washer (2) through the long Front Rail (69), and through the Right Extension Wing (76) and fasten with a 1/4" Flat Washer (2) and a 1/4" Hex Nut (12). Hand tighten only at this time.
6. Repeat Step 5 for the Rear Rails (20 and 21), mounting to the left and right Extension Wings (76). Hand tighten only at this time.
7. On the short Rear Rail (21), push up as far as it will go, then tighten the bolt holding it to the Table. Do not tighten the bolts from the Rear Rails to the Extension Wings at this time.

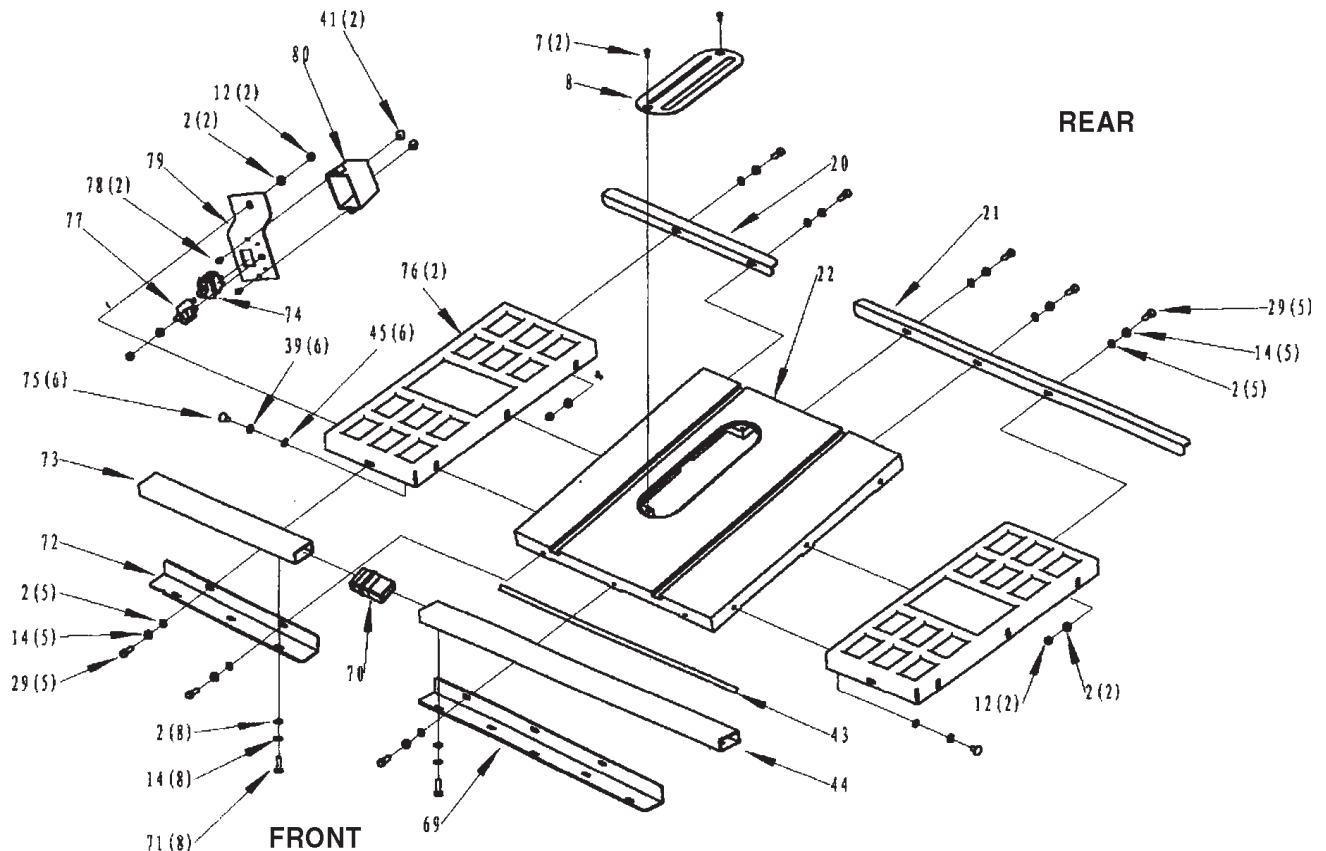


Figure G. Guide Rail Assembly

8. Before attaching the short Front Rail (72) to the left Extension Wing (76), place the Switch Plate (79) behind the lip of the left Extension Wing and line up the holes in the Switch Plate and the Extension Wing.
9. Attach the Short Front Rail (72) to the left Extension Wing (76) with one 1/4" x 3/4" Hex Screw (29), two 1/4" Flat Washers (2), one 1/4" Lock Washer (14), and one 1/4" Hex Nut (12). Hand tighten only at this time.
10. Hold up the Short Front Rail (72) as far as it will go, then tighten the bolt holding the Short Front Rail to the Table (22). Do not tighten the bolt holding the Short Front Rail to the Left Extension Wing (76) at this time. See Figures F and G.
11. Slide the open end of the Long Guide Rail (44) onto the Guide Rail Connector (70), already inserted into the Short Guide Rail (73).
12. Attach the Guide Rail assembly to the Front Rails (69 and 72) with eight 1/4" x 1/2" Hex Screws (71), 1/4" Flat Washers (2), and 1/4" Lock Washers (14). Hand tighten only at this time.
13. Raise the Saw Blade (103) to the highest setting using the Hand Wheel Handle (144).
14. Place the Fence Assembly (37) on the Guide Rail assembly (73 and 44) so that the pointer on the Fence body points to zero on the Guide Rail.
15. Lock the Fence in place by pushing the Lock Handle (55) down.
16. Move the Guide Rail (44) Assembly and the Fence, if necessary, so that the Fence is flush to the Saw Blade (103).

Do not unlock the Fence Lock Handle (55) to perform this. Move the Fence and Guide Rail Assembly together when establishing the zero point.
17. Tighten the eight Hex Screws (29) that hold the Guide Rail (44) Assembly to the Front Rails (69 and 72).
18. Check the clearance between the Table and the Fence. The gap should be the same at the Table front, as it is at the rear. If the gap width is different, adjust the foot at the rear of the Fence until the gap width is the same.

Leveling the Extension Wings

1. Place a straight edge, at least 18" long, on the right-front of the Table (22) and right Extension Wing (76).
2. Raise or lower the Extension Wing until the front edge is flush with the Table.
3. Securely tighten the hardware on the front of the Extension Wing.
4. Move the straight edge to the rear of the Table and Extension Wing and repeat steps 2 and 3.
5. Repeat steps 1 through 4 on the Table and left Extension Wing.

Assembling the Blade Guard and Splitter

1. Insert the blade guard support Shaft (33) and Lock Washer (34) into the curved slot at the rear of the saw Cabinet (57).
Screw in the Shaft clockwise using an open-end wrench until securely tightened. The Shaft has a flat area for the wrench to fit. Refer to Figure H, below.
2. Thread a 7/16" Hex Nut (32) onto the Shaft (33), a little further than halfway.
3. Place on the Shaft (in this order) a 7/16" Lock Washer (31), 7/16" Flat Washer (30), Bracket (28), 7/16" Flat Washer (30), 7/16" Lock Washer (31), and 7/16" Hex Nut (32).
Tighten the outside Hex Nut (32) so that the Bracket (28) is vertical (in line with the Saw Blade (103)).
4. Attach the Splitter (27) to the Bracket (28) with one 1/4" x 3/4" Hex Screw (29), two 1/4" Flat Washers (2), one 1/4" Lock Washer (31), and One 1/4" Hex Nut (12). Hand tighten only at this time.
5. If not already attached, attach the Blade Guard's Support Arm (26) to the Splitter (27) using the Bolt (23), two Spacers (24), and the Nut (25), as shown in Figure H. Level the Blade Guard assembly with the Table (22), and keep 1/16" to 1/8" clearance between the Splitter (27) and the Table.
6. Tighten the Hex Screw and Nut installed in step 4.

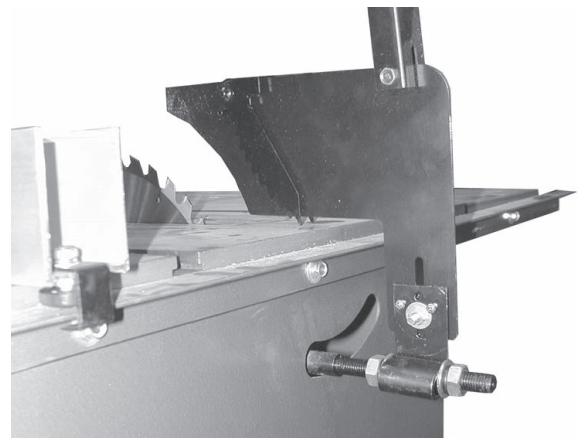
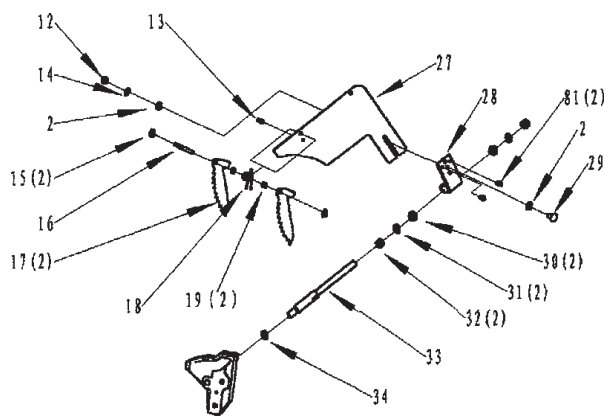


Figure H. Blade Guard and Splitter Assembly

Fence Assembly and Alignment

1. Slide the end of the Fence (37) onto the Fence Body (50), while lining up the screw holes. Refer to Figure J, on the next page.
2. Secure the Fence to the Fence Body with four 5/16" x 3/4" Hex Cap Bolts (38), Lock Washers (14), and Flat Washers (2). Hand tighten only at this time.
3. Attach the Rear Hook (35) and Sliding Pad (36) to the rear of the Fence (37) using one 1/4" Flat Washer (2), 1/4" Lock Washer (14), and two Hex Nuts (12). See Figure H, above.
4. Place the Fence (37) on the Table (22) Guide Rail, adjacent to the miter fixture slot.

5. While holding the Fence Body (50) in place, move the Fence so that it is exactly parallel to the miter fixture slot the entire length of the Fence.
6. Tighten the four Hex Cap Bolts (38). Check the final alignment. If out of parallel, loosen the bolts and realign.
7. If the Pointer on the Fence Body is not at zero while the Fence is flush to the Saw Blade, loosen the Screw holding the Pointer and move it to zero. Retighten the Screw.
8. Check the adjustment of the Rear Hook (35) at the back of the Fence. It should be adjusted so that it overlaps the Rear Rail (21) by about 1/8".
9. Remove the Fence (37) from the Table (22) and set aside.

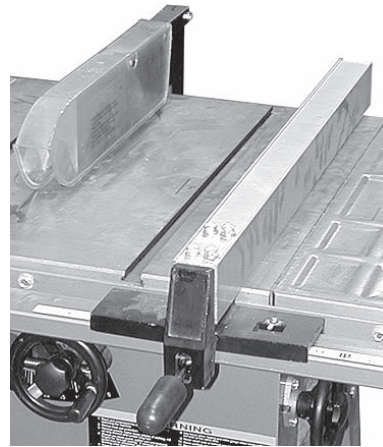
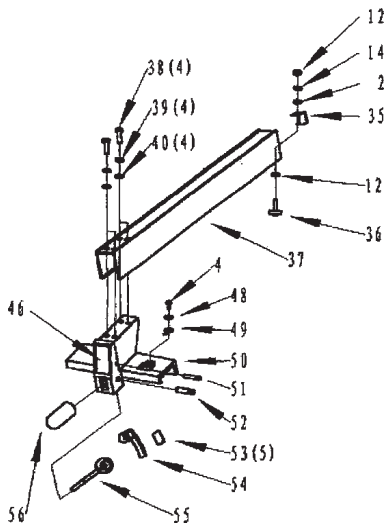


Figure J. Fence Assembly

ADJUSTMENTS

Aligning the Blade Guard and Splitter to the Saw Blade

1. Raise the Blade Guide (10) assembly up and away from the Table (22). See Figure H on the previous page.
2. Raise the Anti-Kickback Pawls (17) up and away from the Table.
3. Raise the Saw Blade (103) to the highest setting using the Hand Wheel Handle (144).
4. Loosen Hex Nut (32) at the end of Shaft (33).
5. Place an accurate straight edge against the Saw Blade (flat surface, not teeth) and the Splitter (27).
6. Move the Splitter until it aligns (center-to-center) with the Saw Blade.
7. Retighten Hex Nut (32).

Miter Gauge Adjustment

Always check to see that the Miter Gauge is accurate at 90 degrees before cutting.

1. To check the alignment, place the Miter Gauge in the Table slot so that the Miter Gauge body is flush with the Table edge. If it is not flush with the edge, continue with step 2. See Figure K., below.
2. Loosen the Lock Knob (1).
3. Move the Miter Gauge body until flush with the Table edge. Retighten Lock Knob (1).
4. If the Pointer (5) is not at 90 degrees, loosen the Screw (4) holding the Pointer and move it to 90 degrees. Retighten Screw (4).

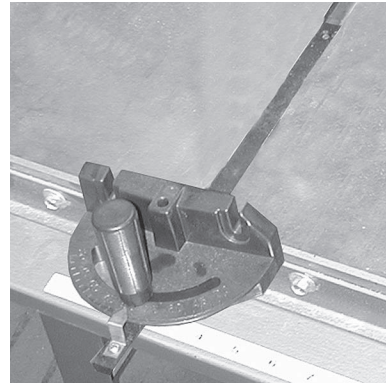
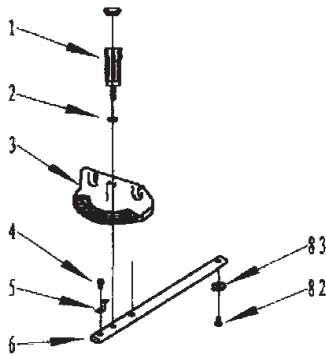


Figure K. Miter Gauge

Removing and Installing the Saw Blade

⚠ WARNING! Avoid serious injury. When removing or installing a Saw Blade, always unplug the Table Saw Line Cord from the electrical outlet and remove the safety key from the Switch! Wear gloves when handling the Saw Blade. The teeth are very sharp.

1. Remove two Screws (7) and the Table Insert (8). Refer to Figure L on the next page.
2. Raise the Saw Blade (103) to the highest setting using the Hand Wheel Handle (144).
3. Place a length of wood (not paneling) at least 2" thick in front of the Saw Blade so that at least one of the teeth engage the wood firmly. This is to keep the Saw Blade from turning when loosening the Arbor Nut (101).
4. Use the Arbor Wrench (174) to turn the Arbor Nut (101) clockwise to loosen. (The Arbor Nut has left-hand threads.)
5. Remove the Arbor Nut (101) and Arbor Flange (102).
6. Remove the Saw Blade.
7. Place a new Saw Blade, or professionally sharpened old Saw Blade, on the Arbor with Flange (113). Note that the teeth should be facing the front of the Table Saw.
8. Replace the Arbor Flange (102) and the Arbor Nut (101).
9. Place a length of wood in back of the Saw Blade so that at least one of the teeth engage the wood.

10. Use the Arbor Wrench (174) to turn the Arbor Nut (101) counterclockwise to securely tighten.
11. Replace the Table Insert (8) and two Screws (7).

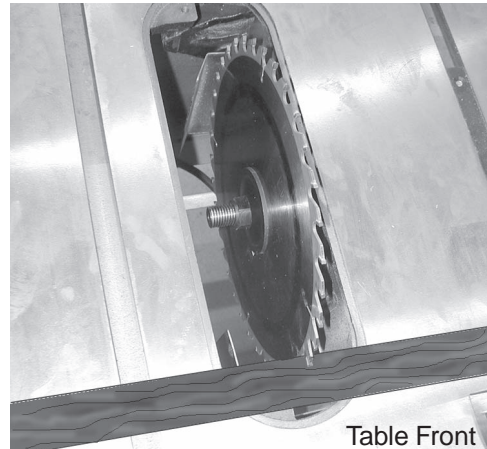
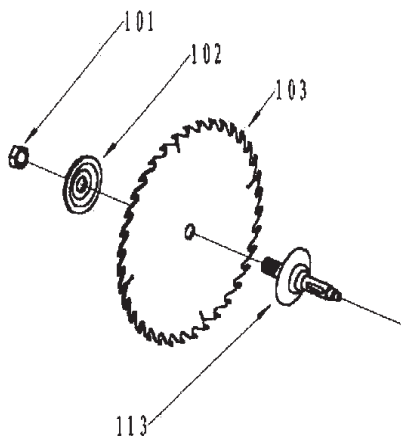


Figure L. Saw Blade Replacement

Adjusting 45 and 90 Degree Positive Stops

⚠ WARNING! Avoid serious injury. When making adjustments around the Saw Blade, always unplug the Table Saw Line Cord from the electrical outlet and remove the safety key from the Switch! Wear gloves when working around the Saw Blade. The teeth are very sharp.

1. Raise the Saw Blade (103) to the highest setting using the Height Hand Wheel (144).
2. Set the Saw Blade at 90 degrees by turning the Tilt Hand Wheel (144) counterclockwise as far as it will go. Do not force beyond the stop.
3. Place a carpenter's square on the Table (22) and against the Saw Blade (without touching the teeth). If the Saw Blade is not at 90 degrees, continue with step 4.
4. Remove two Screws (7) and the Table Insert (8). Refer to Figure L., above.
5. Loosen Set Screw (150) located in the Set Spacer (149) on Leadscrew (161). Refer to the Motor and Trunnion Assembly Drawing on page 24.
6. Turn the Set Spacer in the desired direction. Retighten the Set Screw (150) when the Set Spacer (149) stop is adjusted correctly with the Saw Blade at 90 degrees.
7. Set the Saw Blade at 45 degrees by turning the Tilt Hand Wheel (144) clockwise as far as it will go. Do not force beyond the stop. If the Saw Blade is not at 45 degrees, continue with step 8.
8. Loosen Set Screw (150) located in the Set Spacer (162) on Leadscrew (161).
9. Turn the Set Spacer in the desired direction. Retighten the Set Screw (150) when the Set Spacer (162) stop is adjusted correctly with the Saw Blade at 45 degrees.
10. Replace the Table Insert (8) and two Screws (7).

OPERATING INSTRUCTIONS

Controls and Indicators

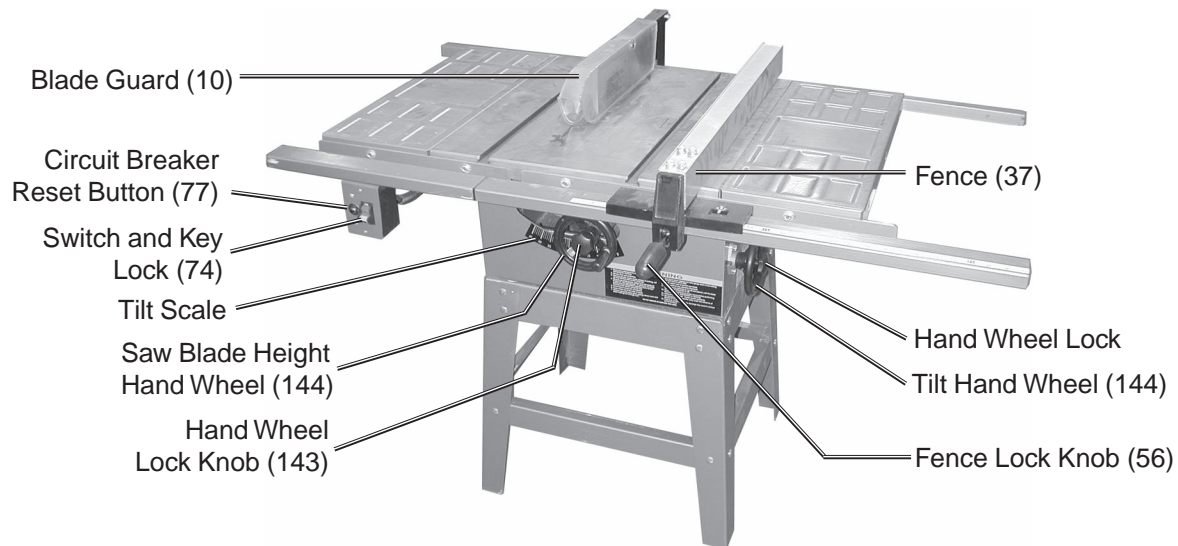


Figure M. Table Saw Controls and Indicators

Raising, Lowering, and Tilting the Saw Blade

⚠ WARNING! Avoid serious injury. Do not raise, lower, or tilt the Saw Blade while the machine is running! Always turn the Table Saw Off before adjusting the Saw Blade.

1. To raise or lower the Saw Blade, loosen the Hand Wheel Lock Knob (143), then turn the Saw Blade Height Hand Wheel (144) on the front of the Table Saw. Retighten Lock Knob.

Note: On through cuts, the Saw Blade should be adjusted to 1/8" to 1/4" above the top surface of the material to be cut.

2. To tilt the Saw Blade from 90 down to 30 degrees, loosen the Hand Wheel Lock Knob (143), then turn the Tilt Hand Wheel (144) on the side of the Table Saw to the desired angle. The angle can be read on the Tilt Scale on the front of the Table Saw. Retighten Lock Knob.

Making a Rip Cut

1. Loosen the Fence Lock Knob (56) and slide the Fence to the desired distance from the Saw Blade. Use the scale on the Rail Guide to measure. Retighten Fence Lock Knob (56).

When cutting a thin width off a plank, the Fence should be positioned so that the thicker part of the plank is between the Fence and the Saw Blade. And, the thinner width is to the left of the Saw Blade. This lowers the chance of binding and kickback.

Longer stock needs to have external support at the same height as the Table.

2. Raise the Blade Guard (10) to expose the Saw Blade. Place the stock to be cut next to the Saw Blade and adjust the Saw Blade height to 1/8" to 1/4" above the thickness of the stock.
3. Lower the Blade Guard (10), making sure that the Anti-kickback Pawls are facing backward and sitting on the Table.
4. Place the Key Lock into the Switch (74) and press up to turn on the Table Saw.

Warning! Avoid serious injury. Keeps hands away from the moving Saw Blade.

5. When the Saw Blade is turning at full speed, guide the side of the stock flush against the Fence and level with the Table, then push forward into the Saw Blade at a slow and even pace. Use a push stick (not supplied) to complete the cut as the end of the stock approaches the Saw Blade.
6. When the cut is complete, step back and press the Switch down to the Off position.
7. When the Saw Blades stops turning, remove the stock from the Table.



Making a Cross Cut

1. Loosen the Fence Lock Knob (56) and remove the Fence from the Table. Set the Fence in a safe place away from the Table Saw.
2. Place the Miter Gauge in the slot to the left or right of the Saw Blade.
Slide the Miter Gauge back and forth in the slot. If movement is sluggish, remove the Miter Gauge and rub some hard wax into the entire slot. Replace the Miter Gauge and slide it back and forth in the slot until movement is easy.
3. If an angle is to be cut, adjust the Miter Gauge by loosening the Lock Knob (1) and setting the desired angle as read on the scale. Retighten the Lock Knob.
4. With the Miter Gauge in front of the Saw Blade, place the stock to be cut flush against the Miter Gauge surface and align the cut mark with the Saw Blade.
5. Raise the Blade Guard (10) to expose the Saw Blade. Place the stock to be cut next to the Saw Blade and adjust the Saw Blade height to 1/8" to 1/4" above the thickness of the stock.
6. Lower the Blade Guard (10), making sure that the Anti-kickback Pawls are facing backward and sitting on the Table.
7. With the Key Lock in the Switch (74), press up to turn on the Table Saw.
8. When the Saw Blade is turning at full speed, carefully push the Miter Gauge with one hand and the stock to be cut with the other. Longer stock needs to have external support at the same height as the Table.

Warning! Avoid serious injuries. Always keep both hands and arms on one side of the Saw Blade, never cross over the Saw Blade.

9. When the cut is complete, step back and press the Switch down to the Off position.
10. When the Saw Blade stops turning, remove the stock from the Table.

INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** All repairs or service, aside from those procedures explained in this manual, should be attempted only by a qualified technician.
2.  **WARNING!** Make sure the Power Switch of the Table Saw is in its “OFF” position and that the tool is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
3. **Before each use**, inspect the general condition of the Table Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
4. Cleaning – After each use, apply compressed air to blow clean all the parts of the Table Saw.
5. Saw Blades – Never use a replacement blade rated lower than 5,200 RPM, and larger than 10 inches diameter.
6. Motor Brushes – Periodically inspect the two motor Carbon Brushes (138) Replace if necessary by a qualified service technician. Improper Brush maintenance can cause motor failure. The Brush Caps (139) are located on each side of the motor housing.
7. Lubrication – The Table Saw does not require initial lubrication. Periodically, however, check all moving parts (i.e., knobs, levers, column shaft, Elevating Handle, shafts) to make sure that they move smoothly. If lubrication is required, use a small amount of light oil.
8. Motor Preventative Maintenance – In addition to worn motor Brushes, the following are major causes of motor failure:
 - Using a dull or sticking Saw Blade
 - Feeding the stock through the Saw Blade too fast
 - Starting the cut before the Saw Blade has reached full speed
 - Abnormal friction caused by improper alignment of the motor assembly, especially when ripping
 - Low current or voltage supplied to the machine
 - Buildup of dust in the motor housing, which prevents proper cooling.
9. Storage – Store the Table Saw in a clean and dry location. Cover with a tarp.

PLEASE READ THE FOLLOWING CAREFULLY

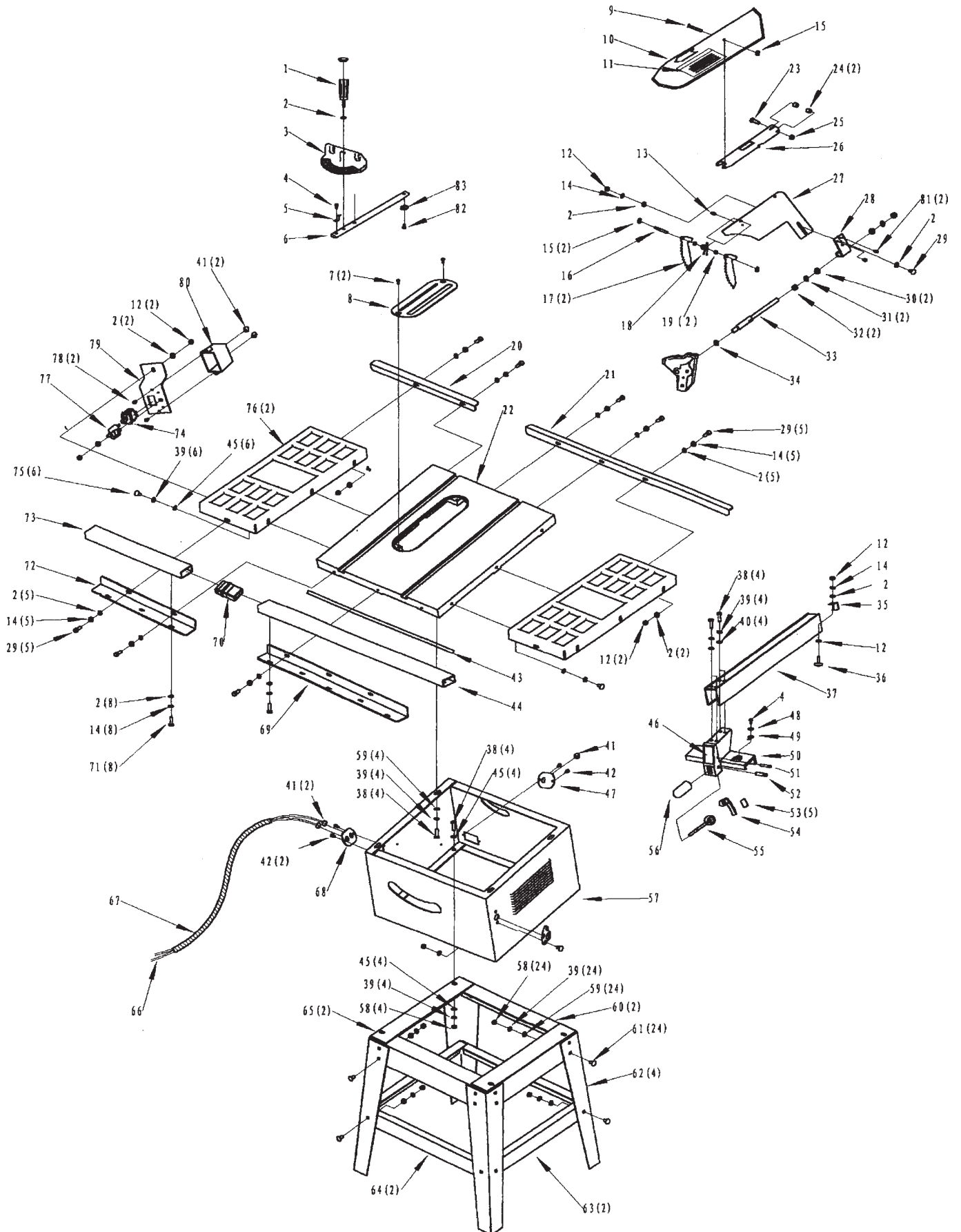
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SAW BODY AND STAND ASSEMBLY PARTS LIST

Part #	Description	Size	Qty	Part #	Description	Size	Qty
1.	Lock Knob		1	43.	Scale		1
2.	Flat Washer	6	26	44.	Guide Rail (long)		1
3.	Miter Gauge Body		1	45.	Flat Washer	8	14
4.	Round Head Screw	M5X8	1	46.	Label		
5.	Pointer		1	47.	Clamp Plate		1
6.	Guide Bar		1	48.	Lock Washer	8	1
7.	Screw	M6X16	2	49.	Pointer		1
8.	Table Insert		1	50.	Fence Body		1
9.	Pin	6X50	1	51.	Pin		1
10.	Blade Guard Assy. CP		1	52.	Pin		1
11.	Warning Label		1	53.	Pad		5
12.	Hex Nut	M6	7	54.	Lock Plate		1
13.	Roll Pin	4X24	1	55.	Lock Handle		1
14.	Lock Washer	6	20	56.	Knob		1
15.	Lock Grommet	6	3	57.	Cabinet		1
16.	Pin	6X26	1	58.	Hex Nut	M8	28
17.	Anti-Kickback Pawl		2	59.	Flat Washer	8	28
18.	Spring		1	60.	Stand Top (front and rear)		2
19.	Spacer		2	61.	Carriage Bolt	M8X12	24
20.	Rear Rail (short)		1	62.	Stand Leg		4
21.	Rear Rail (long)		1	63.	Cross Brace (left and right)		2
22.	Table		1	64.	Cross Brace (front and rear)		2
23.	Hex Cap Bolt	M6X40	1	65.	Stand Top (left and right)		2
24.	Spacer		2	66.	Power Cord		1
25.	Hex Nut	M6	1	67.	Power Cord (switch to motor)		1
26.	Support Arm		1	68.	Cord Clamp Plate		1
27.	Splitter		1	69.	Front Rail (long)		1
28.	Bracket		1	70.	Connector, Guide Rail		1
29.	Hex Screw	M6X20	11	71.	Hex Screw	M6X16	8
30.	Flat Washer	12	2	72.	Front Rail (short)		1
31.	Lock Washer	12	2	73.	Guide Rail (short)		1
32.	Hex Nut	M12	2	74.	Switch		1
33.	Shaft		1	75.	Hex Cap Bolt		6
34.	Lock Washer	12	1	76.	Extension Wing		2
35.	Rear Hook		1	77.	Circuit Breaker Reset Button		1
36.	Sliding Pad		1	78.	Tap Screw	M5X16	2
37.	Fence		1	79.	Switch Plate		1
38.	Hex Cap Bolt	M8X20	12	80.	Switch Box		1
39.	Lock Washer	8	42	81.	Round Head Screw	M4X8	2
40.	Washer	8	4	82.	Screw		1
41.	Cord Clamp		5	83.	Guide Washer		1
42.	Tap Screw	M5X10	4				

NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

SAW BODY AND STAND ASSEMBLY DRAWING



MOTOR AND TRUNNION ASSEMBLY PARTS LIST

Part #	Description	Size	Qty	Part #	Description	Size	Qty
101	Arbor Nut		1	141	Hand Wheel Handle		2
102	Arbor Flange		1	142	Hand Wheel Screw		2
103	Saw Blade		1	143	Lock Knob		2
104	Key		1	144	Hand Wheel		2
105	Gear Bearing		1	145	Flat Washer	10	5
106	Ball Bearing		1	145	Lock Plate		1
107	Bearing Load Spacer		1	146	Shield Plate		1
108	Gear		1	147	Hand Wheel Rod		1
109	Arbor Nut	M12X1.25	1	148	Spring		1
110	Ball Bearing		1	149	Set Spacer		1
111	Bearing Press Top		1	150	Set Screw		3
112	Motor Bracket		1	151	Bolt		1
113	Arbor w/Flange		1				
114	Hex Socket Cap Screw	M5X25	4	153	Cross Connect		1
115	Lock Washer	M5	8	154	Spring		1
116	Pin		1	155	Hex Nut	M6	1
117	Spring		1	156	Lock Washer	6	2
118	Lock Washer	10	1	157	Snap Ring		1
119	Hex Nut	M10	1	158	Hex Bolt	M8X20	2
120	Roll Pin	5X28	2	159	Hex Nut	M8	2
121	Front Trunnion		1	160	Roll Pin	3X18	2
122	Lock Washer	8	10	161	Leadscrew		1
123	Hex Socket Cap Screw	M8X20	4	162	Set Spacer		2
124	Trunnion Bracket		2	163	Connector		1
125	Flat Washer	8	4	164	Pointer Bracket		1
126	Hex Cap Bolt	M8X25	4	165	Pointer		1
127	Rear Trunnion		1	166	Round Head Screw	M6X10	1
128	Spacer		1	167	Leadscrew		1
129	Flat Washer	8	2	168	Front Guard		1
130	Roll Pin	M6X6	2	169	Rear Guard		1
131	Connect Plate		1	170	Tap Screw	M4X10	4
132	Gear Box		1	171	Round Head Screw	M5X15	4
133	Ball Bearing		1	172	Hex Nut	M5	4
134	Rotor Assembly		1	173	Round Head Screw	M5X10	3
135	Ball Bearing		1	174	Arbor Wrench		2
136	Motor Housing		1				1
137	Hex Socket Cap Screw	M5X20	4				1
138	Carbon Brush		2				1
139	Brush Cap		2				
140	Hex Socket Cap Screw	M5X16	2				

NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

MOTOR AND TRUNNION ASSEMBLY DRAWING

